

Benicia Arsenal Guard and Engine House
(Building No. 39)
Benicia Industrial Park
Benicia
Solano County
California

HABS No. CA-1832

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PHOTOGRAPHS

HISTORICAL AND DESCRIPTIVE DATA

Historic American Buildings Survey
National Architectural and Engineering Record
National Park Service
Department of the Interior
Washington, D.C. 20240

HISTORIC AMERICAN BUILDINGS SURVEY

BENICIA ARSENAL GUARD AND ENGINE HOUSE
(Building No. 39)

HABS No. CA-1832

Location: South side of Adams Street, Benicia Industrial Park, Benicia, Solano County, California.

USGS Benicia Quadrangle, Universal Transverse Mercator Coordinates: 10.575920.4211090.

Present Owner: Benicia Industries, Inc. c/o Al Wanger, Vice-President, Benicia Industrial Park, Benicia, California 94510

Present Occupant: Chryster Marine Products

Present Use: Training School

Significance: This building, a very good example of nineteenth-century military architecture, solves in a deft way the problem of coupling two different functions into a compact structure, by placing the guard house in front of the larger shed-like engine room.

PART I. HISTORICAL INFORMATION

A. Physical History

1. Date of erection: 1872. The date on the original drawings (see CA-1832-6) is 1871. The datestone over the guard house door reads 1872.
2. Architect: None known.
3. Original plans and construction: See HABS No. CA-1832-6, "Guard House and Engine House," dated May 22, 1871.

This building was an attempt to combine two very different functions in one structure. The engine house required a large open space, the guard house a series of small cells. It is not known why the two were incorporated into one project, but the result is a successful composition in which each part is completely separate but the two function as a single visual unit with the guard house forming the frontispiece and the engine house the rear wing. The guard house contained a "prison" composed of four cells -- two solitary cells, a "dark cell," and another cell containing the water closet -- in addition to a space that served presumably as an office and guard's quarters.

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This structure is notable for its elaborate ventilation system. Because the cells were on the interior of the building they would have received very little light and less air. To remedy this defect, a flue from each cell was carried up in the rafter space to a large brick flue, which served a fireplace in the main area of the guard house. Apparently it was assumed that if the main fire were kept lit this would provide a continual pull of air out of the chimney and that a flow of air from the outside would be pulled into the cells to replace it.

4. Alterations and additions: At some date since 1915, the exterior of the building was stuccoed and the chimney removed. A parapet was added which obscures the hip roof.

Prepared by: Robert Brueggemann
Project Historian
Historic American Building Survey
August 1976

PART II. ARCHITECTURAL INFORMATION

A. General Statement:

1. Architectural character: Although altered by stuccoing, this small building retains the stone lintels and fortress-like appearance of its original construction.
2. Condition of fabric: Fair.

B. Description of Exterior:

1. Over-all dimensions: The T-shaped, one-story structure measures approximately 33' across its three-bay front by 54' deep. The rear wing is approximately 48' wide.
2. Foundation: Sandstone with watertable, plastered over.
3. Walls: Tan plaster over brick, with stone trim. There is a brick belt course at the window sill level. The windows have stone lintels and sills.

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4. Structural system, framing: Brick load-bearing walls with wood frame roof system. There are king post wood trusses over the engine room, with the members stop-chamfered. Engine room floor is supported by large timber beams, columns, and sandstone foundation walls. In the engine room at each corner is a diagonal wood member across the corner, supporting a short projecting wood beam extending out from the corner.
5. Porches, stoops, bulkheads, etc.: There is a stone and concrete stoop at the main entrance to the guard house on the north facade. Four steps on each side angle from the stoop down to a concrete landing, and six additional concrete steps on each side lead down to the paved parking area. The six concrete steps have a sloping, concrete retaining wall on each side. There is a simple two-by-four wood handrail around the stoop and extending down to and around the landing. An iron foot scraper is on the left side of the stoop.

A stone bulkhead with eight stone steps leads into a cellar at the southeast corner of the building. The bulkhead has a wood door and wood surrounds.

At each door in the engine room is an asphalt paved ramp with a sloping retaining wall capped by stone, plastered. There is a large boulder at the end of each retaining wall.

6. Chimneys: A metal flue projects through the roof near the center of the building.
7. Openings:

- a. Doorways and doors: The main entrance to the guard house is in the center of the north facade. Sandstone pilasters with a stone pediment frame the doorway. Each pilaster extends from a simple stone base with rusticated stonework to pedestal height and smooth stonework to the stone capital. On the pediment above the door carved in the stone is "1872. GUARD HOUSE." An ordnance symbol is on each pilaster just below the capital. The stone is painted white. The door, a recessed wood panel with diamond-pattern light panels above, has a three-light transom window and wood surrounds. The doorway has been framed around on the exterior with wood and a wood panel covering the top part of the door.

Engine room doorways on each end are framed with sandstone pilasters matching the main entrance door. The head has a segmental arch and a large projecting keystone that extends into the stone fascia band. There is an inner sandstone surround recessed behind the pilasters. In the arch is

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carved "Engine House." There are large diagonal plank, bi-parting, sliding doors with stone sills and wood thresholds.

- b. Windows and shutters: Wooden windows have a pair of four-light casement sashes, wood surrounds, stone sill and lintel. There are iron bars on the exterior of the windows in the guard house section. Two of the casement windows have been cut horizontally into two sections.

8. Roof:

- a. Shape, covering: The hip roof is covered with asphalt shingles. A roof hatch has been closed up. There is a shallow stone parapet, and metal downspouts through the parapet.

C. Description of Interior:

1. Floor plans:

- a. Cellar: There is a small cellar under the east end of the engine house, entered through a bulkhead on the southeast corner of the building. The cellar has stone walls and a dirt floor.
- b. First floor: The entrance to the guard house in the center of the north facade opens into a large space, formerly divided into cells. In the southeast corner of the room is a toilet. A doorway near the center of the south wall leads into the engine room, which is one open space.

2. Flooring: Wood flooring.

3. Wall and ceiling finish: Walls are brick with sandstone window surrounds, all painted white. Ceiling in the guard house is plaster on wood lath, painted white. Ceiling in the engine room is exposed wood deck and exposed wood trusses, painted white. Walls around the toilet are vertical wood paneling.

4. Doorways and doors: Wood panel doors with wood surrounds.

5. Mechanical equipment:

- a. Heating: Space heaters.
- b. Lighting: Industrial fluorescent and incandescent fixtures. There is an exterior light over the main entrance and each engine door.

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D. Site:

The building sits on a knoll in an industrial park, facing north onto a large asphalt paved parking lot. Asphalt paving surrounds the building. There are three large eucalyptus trees on the west side of the building near the rear, and four on the east side. An earth bank slopes off to the parking lot in front. At the southwest corner of the building is a concrete drain well with a downspout leading into it.

Prepared by: John P. White
Project Supervisor
Historic American Buildings Survey
August 1976

PART III. SOURCES OF INFORMATION

- A. Architectural Drawings: There are seven sheets of drawings in the National Archives, Cartographic Division, Record Group 156.

"Plan of roofs, Guard House and Engine House." Black and red ink with yellow watercolor on heavy paper. Includes two truss elevations. Folder 1.

Unlabeled drawings. Black ink and sepia wash. Includes three elevations and section of the building. Folder 1.

"Guard House and Engine House, Benicia." Black ink and red and pink watercolor on heavy paper; scale four feet to one inch. Includes three elevations and a longitudinal and transverse section. An excellent drawing but considerably damaged. Folder 1.

Untitled drawing. Black and purple ink on heavy paper. Plan. Folder 2.

"Guardhouse," dated April 29, 1871. Black ink with blue and ochre wash on heavy paper. Wood and iron details of the doors. Folder 4.

"Guard House and Engine House, Benicia," dated May 22, 1871, with Commanding Officer Julian McAllister's signature. On the lower right appears the notation "Ordnance Office, May 31, 1871. Approved C.T.B. Dyer, Chief of Ordnance." Includes a plan, elevation, and section. Folder 5. (HABS No. CA-1832-6).

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B. Early Views:

A U.S. Army photograph, ca. 1915, shows the north front and west side. HABS No. CA-1832-5.

PART IV. PROJECT INFORMATION

This project was undertaken by the Historic American Buildings Survey in cooperation with Exxon Company, U.S.A. (a division of Exxon Corporation) and the Benicia Historical Society. Under the direction of John Poppeliers, Chief of H.A.B.S., the project was completed during the summer of 1976 at the Historic American Buildings Survey Field Office, Benicia, California, by John P. White (Assistant Professor, Texas Tech University), Project Supervisor; Robert Brueggmann (University of Pennsylvania), Project Historian; Kenneth Payson (Cornell University), Architect; and student assistant architects Scott Barnard (University of Pennsylvania); James L. Cook (Texas Tech University); and Gary A. Statkus (University of Illinois, Urbana-Champaign). The written data were edited by Alison K. Hoagland in the HABS Washington office in January, 1981.